When is a *hroc* not a *hroc*? When it is a *crawe* or a *hrefn*: A case-study in recovering Old English folk-taxonomies

ERIC LACEY

The importance of taxonomies is that they are closely tied up with issues of perception.[1] As George Lakoff succinctly put it, 'conceptual systems are organized in terms of categories, and most if not all our thought involves those categories.'[2] So-called 'folk-taxonomies' are especially important in this respect.[3] They are linguistic categorizations which indicate how speakers of a language conceptually organize the world around them.[4] Folk-taxonomies run counter to the classic notion of categories, with roots in Aristotelian essences, which relies on singular, universal, diagnostic properties that all constituent members of a category possess, and they stress the experiential and circumstantial aspects of categorization.[5] Studies in folk-taxonomies have focused on the natural world (on plants and

All references to Old English texts are to those editions used in the *Dictionary of Old English A–G* (henceforth *DOE*) and *Dictionary of Old English Corpus*. Where editions are easily accessed, they have not been cited, but it is useful to reference those of lesser-known homilies and glossaries. **1** G. Lakoff, *Women* (1987), pp xiv–xv; J.A. Hampton, 'Concepts' (2010); J.D. Smith, 'Prototypes' (2014), 312–13. **2** Lakoff, *Women*, p. xvii; see also essays in H. Cohen & C. Lefebvre (eds), *Handbook* (2005), especially J.S. Boster, 'Categories', pp 109–14 and S. Harnad, 'To cognize'. **3** The lack of standardized vocabulary in relation to this topic is troubling, and does little to facilitate discussion between fields interested in the concept. 'Ethnobiological classification', 'folk biological nomenclature', 'biological kind classification', 'folk taxonomies' and the various permutations thereof all refer to this same issue of lexical categorization and its perceptual and cognitive implications. **4** The debate over whether there are underlying universals, or whether all folk-taxonomies are culturally relative, is ongoing, and closely tied to the problem of linguistic universals; for overviews, see H. Lieb, 'Universals of language' (1975); E.R. Anderson, *Folk-taxonomies* (2003), pp 47–9, 456–61. My own view is that categorization is culturally and socially relative, following P.L. Berger & T. Luckmann, *Social construction* (1967); E.S. Hunn, 'Toward a perceptual model', (1977); Lakoff, *Women*. **5** S. Atran, 'Folk-biological life forms' (1985).

animals, for example) as the hierarchical arrangement of these into taxa is both widespread and composed of relatively easily identifiable boundaries.[6]

We are often struck by how similar the Anglo-Saxon world view is to our own. Whether it is in the familiar expressions of personal sorrow of the elegies, the timeless heroism of *Beowulf*, or the coy playfulness of the Exeter Riddles, it is easy – and indeed, important – to concentrate on those emotions and concepts that have spanned the intervening centuries. It is just as important, however, to appreciate the differences. Not doing so, as Earl Anderson has observed, leads to such methodological issues as those found in Johannes Köhler's study of Anglo-Saxon fish-names. Köhler tries to identify Old English *ior/iar* (beaver) with 'eels', ultimately on the grounds of the all-too-common supposition that 'the Anglo-Saxons' way of looking at the world is essentially the same as the modern one, except that the words are different'.[7]

This mentality frequently underlies studies in Old English bird-names, though not always to the same degree. Charles Whitman tried to force the Old English evidence to match scientific categories, like Köhler, as well as later dialectal nomenclature, as when he equates OE *hicemase* with the Blue Tit (*Cyanistes caeruleus*) and the contemporary Cornish dialectal 'hickmal'.[8] This illustrates his prioritization of conforming to modern scientific standards rather than deducing an Anglo-Saxon one, as he makes no attempts to reconcile his equation with that of one of his items of evidence: the Second London-Antwerp Glossary entry *parrax wrenna [uel] hicemase* (lit. '*parrax*: wren or hick-mase' l. 1039), which could indicate semantic overlap of the Old English terms as much as the semantic range of the Latin.[9] Hugo Suolahti's monograph is still indispensable as a philological work, though it too betrays the same categorical tendency as Köhler: each entry matches up the contemporary German name with a scientific name, suggesting equation between the two.[10] Suolahti is occasionally more nuanced in his understanding of less regulated dialectal usage (in his remarks that 'in some areas, ravens and crows are not distinguished from each other, but rather, both are included under the one and the same name', for instance), but treats these as exceptions rather than indications of how pre-ornithological categorization functioned.[11] The recent studies by William Lockwood and Peter Kitson are similar to Suolahti,

6 Hunn, 'Toward a perceptual model', 515; Anderson, *Folk-taxonomies*, p. 23. **7** Ibid., p.19; see also J. Köhler, *Die altenglischen Fischnamen* (1906), p. 51. **8** C.H. Whitman, 'Birds' (1898), 156. **9** L. Kindschi (ed.), *Latin-Old English* (1955), pp 118–19, notes that the identity of the *parrax*, beyond being a bird of augury, is unclear in Latin; the Old English gloss probably owes something to the Irish traditions of the prognosticatory wren; see R.I. Best, 'Prognostications' (1916); B. Ó Cuív, 'Some gaelic traditions' (1980). The identity of the 'hick-mase' is probably some small passerine, though I am reluctant to endorse the specific identification with Tits common in previous scholarship; see W.B. Lockwood, *British bird names* (1984), pp 82–3, 156. **10** H. Suolahti, *Die deutschen Vogelnamen* (1909). **11** Ibid., p. 177: 'In manchen Gegenden warden Raben und Krähen nicht von einander unterschieden, sondern beide Arten unter einund derselben Benennung

insofar as equation with currently recognized species is the norm, though both are more sensitive with regards to the differing semantic ranges of the Old English words.[12] Nevertheless, Kitson under-appreciates the complexity of taxonomies, and dismisses them as self-evident, claiming that in his study:

> the species are taken in an order that compromizes between groupings modern English-speakers, ornithologists or otherwise, might expect, and those which the philological evidence suggests ancestral speakers made.[13]

Precisely what 'philological evidence suggests' is never discussed. The purpose of this study, then, is to take up the issue of the groupings ancestral speakers of English made, by combining linguistic analysis of the Old English evidence with a folk-taxonomical approach. The terms *hroc*, *hrefn* and *crawe* have been chosen because previous research has often been led astray by their similarity to their modern reflexes 'rook' (*Corvus frugilegus*), 'raven' (*C. corax*) and 'crow' (*C. corone/ C. cornix*), and, moreover, because their occurrences in the extant evidence lend themselves handily to both semantic and taxonomic analysis.

THE SPECIES CONCEPT AND SEMANTICS

Folk-taxonomies and scientific taxonomies are often distinguished, though this oversimplifies the relationship between the two classificatory systems. While in many cases they do co-exist, 'with little influence of one on the other', this does not mean that they are not closely related, if not occasionally identical, from the perspective of language-users.[14] Some modern English examples include the King Cobra (*Ophiphagus hannah*), the Electric Eel (*Electrophorus electricus*), Mountain Goat (*Oreamnos americanus*) and Red-tailed Hawk (*Buteo jamaicensis*) being respectively lexicalized as cobra, eel, goat and hawk. Consequently, most English language-users familiar with these terms assume – and can live their entire lives believing – that these animals are, therefore, species of cobra, eel, goat and hawk. However, this is not the case phylogenetically: the King Cobra is not a member of the cobra genus (*Naja*), nor are the Electric Eel, Mountain Goat or Red-tailed Hawk types of eel (order *Anguiliformes*), goat (genus *Capra*) or hawk (genus *Accipiter*). Moreover, a distinction between folk-taxonomy and 'scientific' taxonomy is not useful when discussing Anglo-Saxon evidence. After all, how do we define the scientific tradition in this era? Neither identifying it with modern, empirically-centred criteria nor identifying it with the learned tradition is satisfactory.[15] The

begriffen.' **12** Lockwood, *British bird names*; P.R. Kitson, 'Old English bird-names (I)' (1997); 'Old English bird-names (II)' (1998). **13** Kitson, 'Old English bird-names (I)', 484. **14** Quote from Anderson, *Folk-Taxonomies*, p.54. **15** See e.g. D.C. Lindberg, *Beginnings of western science*

former is anachronistic, and the latter, which would be Christian zoological scholarship in this period, was 'not scientific in the way we understand the term',[16] but rather 'allegorical and moralizing'.[17] Indeed, vernacular Christian zoology was predicated upon the general purpose taxonomies already extant in Old English for its analysis. For these reasons, we are justified as seeing folk-taxonomy as proto-science. Indeed, Anderson opens his book with a quotation from the *Prose Solomon and Saturn* (§28) that identifies the lily (*lilige*) as a herb (*wyrt*), and asks 'why is the lily classified as a herb rather than a flower?'.[18] Is this not protoscientific classification?

My point is furthered by the fact that key figures in the history of (scientific) species-identification were using folk-taxonomies (species as a taxonomic rank).[19] The inextricable link between taxonomy and species is perhaps best articulated by Phillip Kitcher, when he facetiously presents the cynic's definition of species: 'species are those groups which are recognized as species by competent taxonomists. Competent taxonomists, of course, are those who can recognize the true species'.[20] The categorization of species is thus identical to the formation of taxonomies, and the processes of forming taxonomies and identifying species are reciprocally defined.[21] If folk-taxonomies reflect lexicalization of an environment, then it follows that species, the integers by which an environment is lexicalized, is the lexis used of an environment. It then also follows that the semantic range of the lexis will tell us something about the identification of what constituted a species to the Anglo-Saxons. Nor is this incongruent with modern understandings of species concept – a topic which has been the source of much spilled ink.[22] Walter Bock's recent rumination declared that species 'are real only in [chronologically] horizontal comparisons',[23] and both Lakoff and Susan Crane have remarked on the abstractness of the act of speciation.[24] Kitcher's pluralistic approach to speciation necessitates its lack of objectivity, and crucially declares that 'the species category is heterogeneous' – that there are multiple ways of delimiting these categories.[25] Although modern ornithology has largely rejected the idea of multiple speciation because 'it results in taxa that are not comparable',[26] this is only a problem within paradigms where analytical comparisons of specific

(1992). **16** J.E. Salisbury, *The beast within* (2011), pp 86–7, for full discussion. **17** R. Jones, *Medieval natural world* (2013), p. 76. **18** Anderson, *Folk-taxonomies*, p. 17. **19** Linnaeus: P.H. Raven et al., 'Origins' (1971), 1211; Darwin: K. de Queiroz, 'Ernst Mayr' (2005), 6602; 'Darwin'(2011), 23–4. **20** P. Kitcher, 'Species' (1984), 308. **21** See M.C. McKitrick & R.M. Zink, 'Species concepts' (1988), 2. **22** For the various potentially applicable 'species concepts', see G.G.E. Scudder, 'Species concepts' (1974); for the difficulties involved in defining objective grounds for identification, see essays in D.M. Lambert & H.G. Spencer (eds), *Speciation* (1995); M.F. Claridge et al., *Species* (1997), esp. M.F. Claridge et al., 'Practical approaches'; D.L. Hull, 'Ideal species concept'; see also de Queiroz, 'Species concepts'(2007), 880, Table 1. **23** W.J. Bock, 'Species' (2004), 179. **24** Lakoff, *Women*, pp 188–9; S. Crane, *Animal encounters* (2013), p. 73. **25** Kitcher, 'Species', 309. **26** McKitrick & Zink, 'Species concepts', 1.

characteristics are desirable. Outside such paradigms – like folk-taxonomies – taxa differentiated by dissimilar criteria do not bother English speakers: we may refer to songbirds (identified by behaviour) in contrast to eagles (identified by size and shape) or waterfowl (identified by environment) or game (identified by edibility) with no problem whatsoever, even though some of these taxa are defined in more detail than others. We must, then, be aware of the potential for varying criteria, varying details, as well as the possibility of culturally informed categories in Old English.[27]

HREFN, *HROC* AND *CRAWE*

There has been a tendency to impose the modern meanings of 'raven', 'rook' and 'crow' on their Old English etyma and therefore to see them as distinct in the Old English as they are today. However, at the less regularized level of dialectal usage, these terms are not as distinct: 'cra' and 'craw', related to 'crow', are used to refer to the rook, and 'croupy craw' and 'corbie craw' are terms for the raven, suggesting a taxonomic conception of both being types of 'craw'.[28] All three birds look very similar, being medium to large birds with iridescent black feathers, and all three have harsh, dissonant cries. In the field, the three birds can be very difficult to distinguish if an observer is not trained to look for key identifying criteria. Moreover, cultural factors may contribute to a speaker's identification. For example, the crow and raven bear popular connotations of ill-omen and death; consequently a rook perched on the windowsill of the sick or dying is prone to being identified as one of the two former birds. In the absence of any regulation on names of birds, it seems reasonable to suppose that the Old English terms had fluid meanings in a manner not unlike folk-names, and that a variety of factors, ranging from dialect to the context, contributed to whether a speaker referred to a large *Corvidae* as one or the other.

Hrefn is one of the most frequently attested individual bird names in Old English, occurring in eleven poetic texts and nineteen prose texts.[29] Both *hroc* and

27 E.S. Hunn, 'The utilitarian factor' (1982); G. Forth, 'Symbolic birds' (2009). **28** C. Swainson, *Provincial names* (1885), pp 86–7, 88; see also H.K. Swann, *Dictionary* (1913), p. 11; C. Jackson, *British names* (1968), p. 3. **29** Poetic texts: *Battle of Brunanburh* (l. 61), *Genesis A* (ll. 1438, 1449), *Elene* (l. 110), *Fortunes of Men* (l. 36), *Soul and Body I* (l. 52), *Soul and Body II* (l. 49), *Beowulf* (ll. 1801, 2448, 2501, 2925, 2935, 3024), *Judith* (l. 206), *Elene* (ll. 52, 110), *Finnsburh Fragment* (l. 34), *Battle of Maldon* (l. 106); Prose texts: Prose *Life of Guthlac* (9, 11), the two Old English translations of the *Dialogues of Gregory the Great* (8), the two versions of Alcuin's *De virtutibus et vitiis* (see below, n. 51, n. 52), the Anglo-Saxon 'C', 'D' and 'E' *Chronicles* (s.a. 878), the *Old English Martyrology* (No. 16/Jan 10, No. 97/June 2), the Old English *Heptateuch* (Lev 11:13, Gen 8:3), the West-Saxon Gospels (Lk 12:24), *Durham Proverbs* (6), *Adrien and Ritheus* (Questions 22, 24), the Old English *Enlarged Rule of Chrodegang* (81), *In Letania Maiore* (in R. Willard (ed.), *Two apocrypha* (1935),

crawe are much less common, the former appearing only once in prose and the latter never outside glosses and placenames.[30] Historically there has always been some semantic overlap with the words for these species (especially with the crow and raven): Latin *cornix*, *corvus* and other words could mean 'crow' as well as related species;[31] Old Irish *bodb* could refer to a conspiracy of creatures ranging from the raven and its relatives to the blackbird;[32] and in Welsh the three birds are encompassed by *brân*.[33] There are, therefore, many reasons to be suspicious of the modern meticulous separation of these three *Corvidae* (rook, raven and crow), not least because these species look, sound and behave very similarly. Out of the sixty-four occurrences of *hrefn* in Old English (not including its occurrences in formations glossing *nocticorax*), seventeen are poetic, thirty-one are in prose and seventeen are in glossaries. Neither *hroc* nor *crawe* occurs in a poetic context, however. This suggests a hierarchy of register associated with each of these terms which problematizes any notion of clear-cut distinctions between them.

THE ORIGINS OF *HREFN*, *HROC* AND *CRAWE*

A convenient starting point is to examine the etymology of these words (and their cognates) and see what they can tell us about the birds they denoted. Lockwood follows the general agreement that the names of *hrefn*, *hroc* and *crawe* must be derived from the sounds of their calls.[34] *Hrefn* and its cognates suggest Proto-Germanic **xraƀnaz*/**xraƀon* (and Proto-Indo-European **korp-*),[35] and *hrok* suggests Proto-Germanic **xrōkaz*.[36] The /χɹɑβ/ and /χɹok/ noises indicated by these roots, at first glance, are plausible renditions of the cries of the raven and rook respectively, but this will be examined more closely below. Crawe is trickier. Lockwood considers it 'of West Germanic age',[38] Suolahti posits a root like **krēg-n-* (> **krēkk-*),[39] and Orel declines to provide an entry for it at all despite doing so for *hroc* and *hrefn*, perhaps implying he considers it a post-Common Germanic innovation. There is evidently some connection between the bird's

p. 40), 'Geherað nu mæn ða leofestan hu us godes bec' (Ibid., p. 39), three of Ælfric's Catholic Homilies (II.3 (l. 183), II.10 (ll. 105, 184–5, 189–91), II.11 (ll. 144, 146)), Ælfric's First Letter to Wulfstan (l. 83), Ælfric's Life of Vincent (ll. 240, 245), the Legend of the Seven Sleepers, formerly attributed to Ælfric (ll. 76–7), and the Institutes of Polity (§125). **30** *Hroc* only appears in prose in an alliterative pairing with *hrefn: ðær flugon sona to hrocas and hremmas* (nominatively, 'and rooks and ravens immediately flew there'), in Legend of the Seven Sleepers, ll. 76–7; see H. Magennis, 'Ælfric' (1996). **31** E.W. Martin, *Birds* (1914), p. 68; J. André, *Les noms* (1967), pp 60–2; for further references see W. Lindsay, *Glossary* (1895), p. 97. **32** M. Tymoczko, 'Semantic fields' (1990). **33** sv. *brân* 1, in *Geiriadur* (1950–2003). **34** See K. Poole & E. Lacey, 'Avian aurality' (2014). **35** This reconstruction negotiates Pokornoy's and Lockwood's, see J. Pokornoy, *Indogermanisches etymologisches* (1959–69), sv. 'ker-[1], kor-, kr-' with final –p; Lockwood, *British bird names*, p. 9. **36** The Proto-Germanic forms are given here, Lockwood, *British bird names*, pp 9–10; V. Orel, *Handbook* (2003). **37** Ibid., p. 10. **38** Suolahti, *Vogelnamen*, p. 180. **39** Ibid., pp 179–80.

name and the verb 'to crow', a relationship paralleled in Old English *crawe* – *crawan* and Old High German *krâja/krâ(w)a* – *chrâjan/krâwen*,[39] and we see a possible parallel in the Gothic verb hrukjan 'to crow', presumably related to **xrōkaz*.[40] The origins of these three terms then all seem to replicate the hoarse croaking and crowing noises made by the ravens, rooks and crows; inferably /χɹɑβ/, /χɹok/ and /kɹæk/ respectively. Replication seems plausible in this case, but is it possible to corroborate this in any way?

THE ORNITHOLOGICAL EVIDENCE

As a first step towards trying to corroborate the postulated onomatopoeic roots of *hrefn*, *hroc* and *crawe*, I have compared the implied sounds with the transliterations of their calls from modern ornithological guides. Although accurately and objectively transcribing bird-calls into human languages is well-nigh impossible, the ensuing approximants are valuable nonetheless for characterizing the bird-calls in a readily understandable way. The authoritative *Birds of the western palearctic (BWP)* consistently provides transcriptions of bird vocalizations, and the ongoing usefulness of such transcriptions to even the scientific community may be seen in their use alongside sonograms. Sonograms are not useful for medievalists, who have no means of comparing the data with any medieval evidence although medievalists can compare transcribed vocalizations with attempts at rendering or describing vocalizations where they do occur in medieval literature, and also with the transcriptions inherent within onomatopoeic bird-names.

For those who have experienced the calls of the rook, crow and raven, these transliterations can prove reflective both of the variation between these calls, and of the general similarities between them. Some general observations may be made about the most frequently noticed cries of these birds: crows are generally associated with a /kɹɐ/ sort of cry, rooks a /kɐ/ sort of cry and ravens something like /χɹok/.[41] This matches up nicely with the root suggested for crawe, and there are some transcribed raven vocalizations, like 'krapp', that are actually quite a good fit for the suggested /χɹɑβ/.[42] There is a noticeable absence, however, of rook vocalizations that match the suggested /χɹok/; in fact, /χɹok/ is only really matched by raven calls.[43] This is true of the cognates of *hroc* too: Old Norse *hrókr* and Old High German *hruoh* (both nominally mean 'rook') more closely match raven sounds than rook sounds.

This presents us with two alternatives for the origins of *hroc* and its cognates. The aural data suggests that it was originally a raven term that was transferred to

40 For Gothic *hrukjan* see J. Wright, *Grammar* (1910), p. 328; for **xrōkaz* see Orel, Handbook, p. 188. **41** See also J. Mynott, *Birdscapes* (2009), p. 161. **42** S. Cramp (ed.), *Birds of Europe*, 8 (1994), p. 217 (henceforth *BWP*). **43** Ibid., p. 216.

the rook, but we cannot dismiss the possibility that early Germanic speakers heard rook cries as /χɹok/ (such as those rook calls transliterated today as 'krah').[44] To determine which of these is most likely we must turn to the Old English evidence. There are some items which we may term transliterations of this sort in Anglo-Saxon England. Of particular relevance here is an excerpt from Alcuin's *De virtutibus et vitiis*,[45] a treatise which was later translated into Old English. Here Alcuin impugns those who defer their conversion to Christianity:

> Forte respondes: *Cras, cras. O vox corvina! Corvus non redit ad arcam, columba redit*.[46]
>
> The resolute responds: tomorrow, tomorrow. O voice of the raven! The raven does not return to the ark, [but] the dove returns.

Here, we cannot read too much into *cras*, employed as it is in a punning manner, though it is safe to say that it at least evoked the sound of a raven's voice, if we cannot indeed call this a transcription of it. We can assume that this evocativeness was particularly powerful because despite losing the pun (or at least some of its force) in translation, this passage is the source for sermons recorded in London, BL, MS Cotton Tiberius A.III[47] and MS Cotton Vespasian D.XIV.[48] Both texts introduce the meaning of Latin *cras* before the translation of the Latin passage cited above.[49] The Tiberius text endeavours to be as explicit as possible when it delivers the translated pun, stating:

> *Nu, hwonne þu cwyst cras, cras, þæt is tomorgen, tomorgen. Cras eawla þæt is hræfnes stæfn. Se hraefen ne gecyrde na to Noes earce, ac seo culfre cyrde*.[50]
>
> Now, when you say 'cras, cras', that is 'tomorrow, tomorrow'. 'Cras', alas, that is the sound of the raven. The raven did not return at all to Noah's ark, but the dove returned.

The Vespasian text refrains from repeating the definition of cras and simply states: *Nu gyf þu cwetst, cras, cras, þæt is þæs hræfenes stefne. Se ræfen ne gecerde to Noes arca, ac seo culfre cerde* (now if you say 'cras, cras', that is the sound of the raven. The raven did not return to Noah's ark, but the dove returned).[51] The need to

44 Ibid., p. 165. **45** Written while Alcuin was on the Continent, *c.*799–800; L. Wallach, 'Alcuin' (1955), 176. **46** PL, 101: col.623 (*caput xiv*). **47** Dated s.xi med., H. Gneuss, *Handlist* (2001), p. 68, no. 363. **48** Dated s.xii, R. Warner (ed.), *Early English homilies* (1917), p. v. **49** Tiberius A.III: *þu cwyst cras, þæt is ledenword, 7 hit his on ure gepeode tomorgene* (you say "cras", and that is a Latin word, and it, in our language, is "tomorrow"); Vespasian D.XIV: *þu cweðst, cras, þæt is Ledenword 7 is on ure þeodan tomorgen* (you say "cras", that is a Latin word and in our language is "tomorrow"). **50** M. Förster, 'Altenglische Predigtquellen II' (1909), 258. **51** 'Homily XXXV [The Old English Alcuin]: *De conversione ad Dominum*', in Warner, *Early English homilies*, pp 102–4.

introduce the meaning of *cras* in these homilies shows that it was not a Latin word a vernacular audience would be expected to know, suggesting that this passage was chosen for the striking comparison with a raven's call; it follows that 'cras' must have been readily identifiable as such to an Anglo-Saxon audience. Indeed, the Vespasian text features 'cras' only in its capacity as a raven's cry.

In the eleventh-century Harley glossary we find another possible example of transliteration at line C 1385: *Coax .i. cra . uox ranarum uel coruorum* (coax, that is cra, the sound of frogs or ravens).[52] Patrizia Lendinara sees this as glossary-embedded evidence of the circulation of *uoces animantium* (texts where the names of animals were coupled with verbs describing their cries), and links both this and the following item in the glossary, C 1386: *Coaxant . siue ranae* (they croak, or [the sound] of the frog) with Aldhelm's *De uirginitate*, which contains the lines *garrulitas ranarum crepitans coaxat* (the rippling garrulity of the frogs' croaks) and *ranae coaxant* (frogs croak).[53] Lendinara's observation is certainly correct for C 1386, but cannot be for C 1385 because *coax* and *cra* are not verbs. It seems more likely that the source for this was Priscian's *Institutiones grammaticae* I.I.2: *aliae autem sunt, quae, quamvis scribantur, tamen inarticulatae dicuntur, cum nihil significent, ut 'coax,' 'cra'* (however there are other [voices], which, although they are written, have no meaning, like 'coax' and 'cra'), in which there is no accompanying information identifying the sources of these sounds. We have a fragment of, and an excerpt from, Priscian's *Institutiones grammaticae* predating the Harley glossary,[54] and Bede and Aldhelm also seem to have had access to the text.[55] Presumably the 'voices' 'cra' and 'coax' would have been readily identifiable to Priscian's immediate audience as the sounds of a frog and a raven (or some other corvid), and it is possible that the source glossary for C 1386 originally sought to remedy a later problem of identification by glossing *coax* with *uox ranarum* and *cra* with *uox coruorum*. At least some degree of misunderstanding is suggested by the placement of *.i.* in the item's line, as both *coax* and *cra* should be rendered by the interpretamentum rather than just *coax*. This could be the result of scribal error, yet for such an error to take place, both *cra* and *coax* must have been seen as plausible transliterations of both a frog's and a raven's call, and *cra* as especially fitting for the raven. It is doubtful, then, whether 'coax' was readily perceived to be a transliteration of the raven's call to Anglo-Saxons, but more certain that 'cra(s)' was. If

52 London, BL, MS Harley 3376, C 1385, R.T. Oliphant (ed.), *Latin-Old English glossary* (1966); for dating see N.R. Ker, *Catalogue* (1957), p. 312. **53** P. Lendinara, 'Contextualized lexicography' (2005), p. 118; the translations are hers. **54** In H. Keil (ed.), *Grammatici Latini*, 2 (1855), p. 5; see also Gneuss, *Handlist*, nos 211, s.ix/x or x^1; 809.9, s.ix, and nos 13.5, s.xi/xii or x.xii in; 123, s.xi ex.; 127.3, s.xi^2; 192, s.xi/xii). See further M. Lapidge, *Anglo-Saxon library* (2006), pp 326–7 who notes Priscian's text may have been known earlier, by Aldhelm (pp 100–1, 184); he also edits an inventory list containing this text from s.xi^{ex} (pp 141–2). **55** See Lapidge, *Anglo-Saxon library*, pp 223, 231; Abbo and Byrhtferth also seem to have had access to it (Ibid., pp 246, 273).

this were the case, then the perceived sound of the raven's call is indistinguishable from the posited onomatopoeic root for *crawe*. Indeed, the transliteration 'cra(s)' could apply to the rook's vocalizations too.[56]

The cases of Old English *crakettan* and *crǽcetung* (croaking) are similar. Jointly they are attested once each in the Old English corpus: *crakettan* in the Old English *Dialogues* of Gregory the Great (II.8), and *crǽcetung* once in the Old English prose *Life of Guthlac* (Ch. 8). In both cases they refer explicitly to the vocalizations of a *hrefn*. Although they derive from the Latin of the source text (*crakettan* < Latin *crocitare*, *crǽcetung* < Latin *crocitatio*),[57] their use necessitates understanding that the words are onomatopoeic. In the prose *Guthlac*, *crǽcetung* is found alongside a Germanic onomatopoeic word: *hræfena crǽcetung ond mislice fugela hwistlunge* (the croaking of ravens and the various whistles of birds). The implied sound of these terms is something like /kɪæk/- a sound much like the posited root for *hroc* (<**xrōkaz*). Possible affirmation that the Anglo-Saxons continued to equate a sound of this sort with the hroc can be seen in their choice of interpretamentum for Latin *graculus*, a bird unidentifiable apart from its blackness and its distinction from crows and ravens.[58] In all but one instance *graculus* is glossed *hroc*, and in one of those instances it is misspelt *cracculus*.[59] It is possible that its equation with the *hroc* was because the *graculus* was thought to make a /gɪæk/ sound, though we must bear in mind the lemma's source, Pliny's *Natural History* XI.201, in which three birds (*graculi*, *corvi* and *cornices*) are described as having hardier stomachs (*gula patentiore*). It would seem straightforward for glossators to opt for a third scavenger bird (the rook) alongside the raven and crow here.

The evidence from the Old English period, then, suggests that /kɪɐs/ and /kɪɐk/ were sounds appropriate for a *hrefn* and also, though with less certainty, that /gɪæk/ was appropriate for a *hroc*. The difference between /kɪɐk/ and /gɪæk/ seems slight. We would be justified in understanding these as variant transcriptions of the same call, although this call is only made by ravens, not by rooks or crows. The sound represented by 'coax', interpreted in the Harley Glossary to be a description of the vocalizations of both frog and raven, seems to square with the modern transliterations of raven calls (like 'quork' and 'croak').[60] There are still too many uncertainties to allow for secure identifications, but if we can make some broad

56 *BWP*, 8, pp 165–6. **57** *DOE*, sv. *crācettan* and *crācettung*. **58** For *graculus*, see André, *Les noms*, pp 86–7. **59** *Hroc* glosses *cracculus uel garrulus* in the Second Antwerp-London glossary, l. 1030; see also Ælfric's glossary, ll. 11–12, J. Zupitza (ed.), *Ælfrics Grammatik und Glossar* (1880), p. 307, and the *libellus de nominibus naturalium rerum*, l. 25, R. Garrett, 'Middle English and French glosses' (1908), 411–12. When *graculus* is not glossed by *hroc*, in the Second Antwerp-London glossary, l. 1017, it and *monedula* are both glossed by *ceo* (etymon of Modern English chough (*Pyrrhocorax pyrrhocorax*)). Note that Old English *ceo* referred to the jackdaw (*Corvus monedula*), Lockwood, *British Bird names*, sv. 'chough'. **60** *BWP*, 8, p. 216.

generalizations, the 'cras' found in Alcuin's *De virtutibus et vitiis* and the Old English translations, as well as in the Harley Glossary, looks to be equally applicable to raven, rook and crow by comparison with modern transliterations, though it is only ever attributed to the *hrefn* in Old English.[61] This implies that all three birds could be subsumed under *hrefn*, and evidence to corroborate this implication is presented below. Something quite different is going on, however, with the sounds /kɪæk/, used of the *hrefn*, and /gɪæk/, implied to be the sound of the *graculus*. By comparison with the modern transliterations, these seem more likely to refer to raven vocalizations than rook calls. As these sounds recall the postulated root for Old English *hroc* (/χɪok/), it is difficult to avoid concluding that Proto-Germanic **xrōkaz* was originally a term referring to the raven rather than the rook. It then probably became a vertically polysemous term referring to the three largest *Corvidae* collectively, before narrowing semantically to cover the rook and other crows, and then eventually just the rook.[62]

The attribution of these sounds to the *hrefn* in Old English may have to do with its prominence in the Anglo-Saxon imagination. For the moment it is sufficient to note that despite the parcelling of sounds inherent in the names *hroc* and *crawe*, crows, ravens and rooks all make /kɪæ/ (or /kɪɑ/) noises and only ravens make /χɪok/ calls, and that this has implications for their (lack of) speciation. In the next section I examine visual descriptions of these birds, where they occur, in order to determine what the specific the descriptions of the visual characteristics are, and whether they provide a case for differentiating the *hrefn*, *crawe* and *hroc*.

THE VISUAL CRITERIA

Most descriptions of the *hrefn* in Old English are in relation to its colour, and specifically, the *hrefn*'s darkness. This does not preclude the possibility of ravens, rooks and crows being covered by the word, as all are dark birds. Even in the unusual case of the *hrefn blaca* ('dark/iridescent raven', *Beowulf* l. 1801b), the bird referred to could still plausibly be rook, raven or crow.[63] All extant *hrefn* descriptions – where any detail is given – consist of at least one of the following: forms of *wonn* (dark),[64] forms of *swearta* (black),[65] *blacan* (black),[66] miscellaneous

61 Note that it is attributed to a *corvina* in the Latin, see further below. **62** This particular shift is evidenced in the use of *hroc* to refer to 'small ravens' in Old English, though it is better attested in Middle and Early Modern English. See *OED*, s.v. 'rook, n.1'; *Middle English dictionary* (1952–2001), s.v. 'rōk(e (n.(2))'. **63** See E. Lacey, '*Beowulf*'s blithe-hearted raven' (forthcoming). Whether the meaning of *blaca* is 'dark' or 'bright' (and therefore, 'iridescent') is irrelevant as rooks, ravens and crows are all dark and iridescent. **64** *Judith* (l. 206b), *Beowulf* (l. 3021), *Elene* (l. 52). **65** *Genesis* (ll. 1438, 1449), *Soul and Body II* (l. 49), Ælfric's *Life of Saint Vincent* (ll. 240, 245), *Soul and Body I* (l. 52), *Finnsburg Fragment* (l. 34), *CH*, II.10 (ll. 103, 191). **66** *CH*, II.3 (l. 184), Zupitza, *Ælfrics*

terms denoting 'dusky-coloured',[67] references to its bill,[68] and allusions to its craving for slaughter.[69] None of these are diagnostic of ravens, except possibly for the bill descriptions, which are discussed below. In the extant texts, no occurrence of either *hroc* or *crawe* is accompanied by a colour description, a corollary of their occurrence in less elaborate registers where they are afforded no adjectives. In the single instance where *hroc* occurs in a prose text only two things can be inferred: first, that it is flying, and second, that it is accompanied by more than one *hrefn* and many other kinds of birds.70 The passage does not indicate whether *hroc* and *hrefn* here are appositive statements or different birds.

In two poems, the *Brunanburh of Brunanburh* and *Judith*, there is the possibly diagnostic description of the *hrefn* as *hyrnednebba(n)* (lit. 'horned-beaked').[71] It is tempting to link this to the raven's thick, heavy-set bill.[72] However, *hyrned* connotes both sharp points as well as horn-like curves; thus the gloss *þryhyrnede* (three-pointed) for *triangulus* (triangle).[73] Therefore *hyrnednebba(n)* does not necessarily denote the curved beaks of ravens, and could apply to the pointed bills of crows and rooks.[74] The adjective *sweartan*, used of the beak of the *hræfn* in prose *Life of Guthlac*, is almost as vague, ruling out only the adult rook (Ch. 11).[75] The criteria used by modern observers to distinguish the raven from other *Corvidae* are completely absent: nowhere in Old English is reference made explicitly to the large(r) size of the bird, nor to its hackles.[76] As neither the transliterated evidence nor the physical descriptions provide any evidence that the *hrefn*, *crawe* and *hroc* were differentiated, it remains only to take a close look at the lexical evidence itself: this is, after all, the only indicator that there was any differentiation.

PULLIS CORVORUM — AND ITS IMPLICATIONS FOR *CORVID* TAXONOMY

It is an odd place to look for ornithological data, but nine of the Anglo-Saxon psalters with Old English translations contain a phrase with significant implications for *Corvid* taxonomy in Anglo-Saxon England. The psalters in question are the Cambridge, Vespasian, Salisbury, Arundel, Vitellius, Regius, Stowe, Lambeth and

Grammatik und Glossar, p. 12, l. 12. **67** *Finnsburg Fragment* (l. 34), *Battle of Brunanburh* (l. 160), *Fortunes of Men* (l. 36). **68** *CH*, II.10 (ll. 191–2), *Battle of Brunanburh* (l. 62), and possibly *Judith* (l. 212). **69** *Elene* (l. 52). **70** *ðær flugon sona to hrocas and hremmas* (and *hrocs* and *hrefns* immediately flew there), Ælfric's 'Life of St Vincent', ll. 76–7. See also n. 31, above. **71** It is unclear whether it applies to the eagle or raven in *Judith*. B.J. Timmer (ed.), *Judith* (1961), pp. 10 and 28, makes it clear that he considers *hyrnednebba* and *salowigpada* (dark-coated) to refer to the *earn* (eagle), and R. Marsden, *Old English reader* (2004), p. 157, n. 211–2 follows this. Initially, M. Griffith (ed.), *Judith* (1997), p. 131, n. 209b–12a, highlights the ambiguity of *hyrnednebba* in referring to either the eagle or the raven but then argues for the latter. **72** *BWP*, 8, p. 206. **73** Zapitza, *Ælfrics Grammatik und Glossar*, p. 289, ll. 3–4. **74** *BWP*, 8, pp 151, 172. **75** Ibid., p. 151. **76** Ibid., p. 206.

Eadwine's Canterbury psalters. Despite representing the Roman, Gallican and Hebraic psalters between them, the passage in question, Psalm 146:9, is the same throughout. In a list of attributions to God, we find God described as he *qui dat iumentis escam ipsorum et pullis coruorum inuocantibus eum* (who gives to beasts their food and to the raven chicks that call upon him). While the simplex *coruus* is otherwise translated *hrefn* in Old English, the phrase *pullis coruorum* (raven chicks) is translated in three different ways in the psalters (see Table 1):

Number of times attested	Old English translation	Modern English translation	Psalters in which attested
3	*briddum hrefn/hremma*	chicks of ravens	Cambridge, Vespasian, Salisbury
5	*briddum (h)roca*	chicks of rooks	Arundel, Vitellius, Regius, Stowe, Lambeth
1	*briddum crawan*	chicks of crows	Eadwine's Canterbury Psalter

Table 1. Translations of *pullis coruorum* in Old English

When ravens are mentioned elsewhere in these psalters, they are translated *hrefn* or *hremn*. It is only here, translating *pullis coruorum*, that *coruus* is rendered anything else. The clear implication is that fully grown, or large, *Corvidae* were thought to be *hrefnas*, and that smaller, or lesser developed, *Corvidae* were thought to be either *hroccas* or *crawan*. There is no other evidence in Old English as striking as the translations of *pullis coruorum*, though there is some corroborating evidence for *crawe* and *hroc* being perceived as diminutive ravens elsewhere. Psalm 101:7 (*Similis factus sum pellicano solitudinis factus sum sicut nycticorax in domicilio*: I have been like the *pellicano* in the wilderness, I have been just as the nocticorax in the dwelling) mentions two unusual birds that glossators and translators, both modern and medieval, have struggled with.[77] *Nocticorax* (night-raven) is usually calqued into Old English as *nihthrefn* (night-raven), but in the Lambeth psalter it is calqued *nihthroc* (night-rook). As the Lambeth psalter also translates *pullis coruorum* with *briddum hroca*, it may reflect that some Anglo-Saxons preferentially translated Latin *corvus* with *hroc* rather than *hrefn*, but this in itself suggests that *hroc* was considered both suitable for, and applicable to, a raven. It may be a remnant of the era, posited above, when *hroc* was actually a raven term. The other pieces of corroborating evidence come from the Second Antwerp glossary. In its list of bird-names, it has *Cornix et coruina crawe* (l. 1012) and *Coruus et corax remn*

77 M.D. Meritt, *Some of the hardest glosses* (1968), p. 115.

(l. 1015). It is not clear if *cornix* was understood to be a diminutive of *corax* (as these glosses suggest), though we can be sure that *coruina* was understood as a diminutive of *coruus*. When faced with diminutives for 'raven', the Second Antwerp glossary uses *crawe* instead, and this would support the taxonomy deduced from the *pullis coruorum* glosses, in which *crawan* were thought to be small *hrefnas*.

CORVID PERCEPTION AND TAXONOMY

This discussion began by reviewing the onomatopoeic origins of Old English *crawe*, *hrefn* and *hroc*, and found that there were some complications in the naming in terms of the sounds alluded to by each of these calls: all three names are applicable to raven vocalizations, *crawe* is applicable to crow and rook cries, but *hroc* is not redolent of the sounds of either crows or rooks – it only suits raven calls. The aural data implied that Common Germanic **xrōkaz* was originally a raven-name, and that raven-names (in this case both **xrōkaz* and OE *hrefn*) were prone to becoming terms covering all large *Corvidae*. A survey of physical descriptions of these birds in Old English found no reliable grounds for physically distinguishing the hrefn, though the handling of glosses – particularly of *pullis coruorum* – suggests that the *hrefn* was recognized as being larger.

By way of conclusion, the following taxonomy is suggested: *hrefn*, *hroc* and *crawe* were seen, to some extent, as the same creature. Taxonomically speaking, this creature was referred to via the Level II *hrefn* (a hyponym of Level I *fugel*, 'bird'), which encompassed the vertically polysemous Level III *hrefn* (the largest of the *Corvidae*), Level III *crawe* and Level III *hroc*. It is unclear to what extent, or if, the *crawe* and *hroc* were distinguished beyond being smaller than the *hrefn*, and so the taxonomy may be visualized thus:

I – 'basic' terms	*Fugel*
II – 'secondary'	*Hrefn*
III – 'specialized'	*Hrefn* *Hroc* *Crawe*

There is no identification of the diagnostic characteristics of these birds in the textual sources, and so it is not possible to assess if any other visual criteria factored into their identification. This means that, although it is tempting to translate *hroc* and *crawe* with their modern reflexes, there is no justification for doing so: *hroc* could have been applied to carrion crows as easily as *crawe* could have been applied to the rook. Indeed, both *hroc* and *crawe* could have been applied indiscriminately

to the same species. This sort of speciation is clear in Shakespeare's *Macbeth* (III.ii.50–1), where the eponymous character remarks that 'the crow / Makes wing to th' rooky wood'.[78] It is not clear, either, to what extent the *hrefn* was distinguished from either the *crawe* or *hroc* too: the *pullis coruorum* glosses imply that size was a factor, but the exclusive use of *hrefn* in poetic contexts raises the possibility that artistic licence and dramatic concern, at the very least, could result in birds potentially identified as *crawe* or *hroc* being called *hrefn*. By analogy with modern dialectal speciation, we must also remain open to individual or regional preferences too. Things are not all murky, however: comparative use of ornithological data, historical linguistics and close-textual reading have affirmed the importance of the birds' vocalizations – and taking this together with the findings presented here, as a whole, indicates that the most likely sphere of differentiation, outside of size, is that of aurality.

78 K. Muir (ed.), *Macbeth* (1984), p. 85.